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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/591,182	08/30/2006	Hiroshi Araki	295582US2PCT	7762

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EXAMINER	
COLON SANTANA, EDUARDO	

ART UNIT	PAPER NUMBER
2837	

NOTIFICATION DATE	DELIVERY MODE
03/24/2009	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/591,182	ARAKI, HIROSHI	
	Examiner	Art Unit	
	Eduardo Colon-Santana	2837	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *30 August 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *12-22* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *12-22* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *30 August 2006* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *20090313*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☒ Other: *Detailed Action*.

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statements (IDS) submitted on 08/30/2006; 11/30/2006; 01/04/2008; 03/28/2008 and 08/15/2008 are in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Drawings

2. Figures 9-11 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 12-22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and

distinctly claim the subject matter which applicant regards as the invention.

Referring to claim 12, applicant has not provided any further details for the abbreviation "ECU". It is not clear what is meant for "ECU" in the claim. Normally the term "ECU" is reference to an "engine control unit" which is used to control combustion engines in automobiles.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 12, 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over applicant's admitted prior art of figures 9-11 corresponding to Japanese Patent No. 11-246137.

Referring to claim 12, applicant's admitted prior art of figures 10 and 11 (Corresponding to figures 12 and 1 respectively of JP. 11-246137) disclose an elevator control apparatus having a winch (5) for driving a car (8) to move upward and downward; an electric motor (3); an inverter (17) that controls the motor (3) and a ECU (22). However, applicant's admitted prior art of Figure 11 depicts having the ECU (22) being part of the controller unit (42) and not being an integral part of the drive unit (41) that includes all the components mentioned

above. It would have been obvious to one having ordinary skill in the art at the time the invention was made to integrate the ECU with all the parts of the drive unit (41), since it has been held that rearranging parts of an invention and forming into one piece an element (i.e. drive control unit) which was formerly formed into two pieces and put together involves only routine skill in the art. See *In re Japikse*, 86 USPQ 70 and *Howard v. Detroit Stove Works*, 150 U.S. 164 (1893). Additionally, one of ordinary skill in the art recognized the operational advantages of removing the overlapped noise due to wiring, that is expected in general as the ECU and the drive unit (41) are integrated.

Referring to claim 13, Applicant's admitted prior art of figures 9-11, addresses the obvious limitations of claim 12 above, in addition to depict a hall call button (10) in the hall and undoubtedly discloses a car call button installed inside the elevator car (8). Additionally discloses in figure 11, the ECU which includes a traffic control device being installed divided from the drive control unit (41).

5. Claims 14—16 are rejected under 35 U.S.C. 103(a) as being unpatentable over applicant’s admitted prior art of figures 9-11 in view of Eiji Uchiumi JP. 2003-104634.

Referring to claims 14 and 15, Applicant’s admitted prior art of figures 9-11, disclose the obvious limitations of claims 12 and 13 above, but does not explicitly describe that the drive control unit is installed in a hoistway for the car and the traffic control device is

installed in a position accessible by an operator either in the hall, inside of a wall of the hall, in a wall in the hoistway or in the car. Nonetheless, Eiji discloses an elevator system (see figures 1, 2) which includes a drive control device (main circuit 15) installed near the motor (4) in the hoistway and the control circuit (16) which would include a traffic control installed in the panel of a door (12) on the side of an elevator landing (10) which can be operated from the elevator landing (10) (see Abstract). Although Eiji do not explicitly describe that the control circuit (16) is inside the car or inside a wall of a hall, it would have been an obvious design choice to arranged both control devices independent from each other for the purpose of maximizing space on or near the hoistway in order to perform adjustment and maintenance in an effective and safely manner.

As to claim 16, Eiji discloses in claims 7 and 8 that the signal transmission arranged from the main circuit (15) and the control circuit (16) is using serial and optical communication.

6. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's admitted prior art of figures 9-11 in view of Yoshimura U.S. Patent No. 6,747,432.

Referring to claim 17, Applicant's admitted prior art of figures 9-11 addressed all the obvious limitations of claim 12 above, but does not explicitly describe that the drive control device is integrally constructed by resin molding. However, Yoshimura discloses a drive apparatus wherein the drive apparatus (21) together with a control IC (33) see figure 1 is constructed by resin molding. It would have been

obvious to one of ordinary skill in the art at the time of the invention to use resin molding for the purpose of sealing and reducing the size of the drive control device, enabling it to be located in the vicinity of the motor simplifying the handling of wires.

7. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's admitted prior art of figures 9-11 and Yoshimura as applied to claim 17 above and further in view of Nakahama et al. JP 11313465 A.

Referring to claim 18, Applicant's admitted prior art of figures 9-11 and Yoshimura addresses all the obvious limitations of claim 17 above, but does not explicitly describe further having cooling fins that cool the electric motor and the inverter. Nonetheless, Nakahama discloses a motor control device in which radiation fins (5) are used for cooling the electric motor (1) and the control device (3) which includes an inverter unit (see figure 65 and pars. 0001-0003). It would have been obvious to one of ordinary skill to include metal fins as taught by Nakahama within Applicant's admitted prior art since they would cool the motor and the control device, permitting that the motor and the control device operate without instability, generally faster leading to higher performance.

8. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's admitted prior art of figures 9-11 in view of Yamamoto U.S. Patent Application No. 2003/0052544 A1.

Referring to claim 19, Applicant's admitted prior art of figures 9-11 address all the obvious limitations of claim 12 above, but does

not explicitly describe that the inverter comprises a power conversion device being a matrix converter circuit type. However, Yamamoto et al. discloses a PWM cycloconverter (matrix converter circuit) see figures 8 and 9, item (80). It would have been obvious to one of ordinary skill in the art at the time of the invention to add a matrix converter circuit type as taught by Yamamoto within the teaching of Applicant's admitted prior art for the purpose/advantages that a matrix converter circuit would automatically halt operation of an elevator in the event of a power supply abnormality, since matrix converter are used for controlling the speed of the motor in a high power application such as elevator control.

9. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant’s admitted prior art of figures 9-11 in view of Yoneda et al. JP Patent No. 2001158578 A.

Referring to claim 20, Applicant’s admitted prior art of figures 9-11 address all the obvious limitations of claims 12 and 13 above, but does not explicitly describe that traffic control device includes a personal computer. Nonetheless, Yoneda et al. discloses a group supervisory control system for elevator, wherein claim 3, discloses the use of a personal computer. It would have been obvious to one of ordinary skill in the art at the time of the invention to use a general purpose personal computer as taught by Yoneda within the teaching of Applicant’s admitted prior art for the purpose/advantages of managing every aspect of the elevator operation and monitoring

abnormalities when they occur to quickly and efficiently control elevator traffic movement.

10. Claims 21 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's admitted prior art of figures 9-11 in view of Nakagawa WO 01/46059 A1.

JP 4072342 which is a patent family of WO01/46059 was used for translation purposes.

Referring to claims 21 and 22, Applicant's admitted prior art of figures 9-11 address all the obvious limitations of claims 12 and 13 above, but does not explicitly describe having a plurality of drive control devices for controlling a plurality of cars. However, Nakagawa discloses a juxtaposed elevator system having a plurality of control devices integrally constructed individually (18a, 18b) for controlling a plurality of cars (2a, 2b) having individual main sheaves (12a, 12b) with individual rope wrapped around them and counter weight (3a, 3b) (see figure 1). Furthermore, Nakagawa discloses a single traffic control device (20) that controls the drive control devices (18a, 18b) to centrally control the plurality of cars. It would have been obvious to one of ordinary skill in the art at the time of the invention to have a plurality of drive controllers being controlled by a single traffic control device for the purpose/advantages of increasing cross sectional area by minimizing space if more than one traffic control is installed; in addition to centrally manage from one point of access a plurality of elevator cars in case other elevator cars are less responsive due to high traffic volume.

Conclusion

11. The prior art made of record in form 892 and not specifically relied upon is considered pertinent to applicant's disclosure to further show the state of the art.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eduardo Colon-Santana whose telephone number is (571)272-2060. The examiner can normally be reached on Monday thru Friday 7:00am - 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Walter Benson can be reached on (571) 272-2800 X.37. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. For more information about, see http://pair-direct.uspto.gov. Should you have questions, contact the Electronic Business Center (EBC) at 866-217-9197. If you would like assistance, call 800-786-9199 or 571-272-1000.

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